

PLATE VII.

Fig. 1. *Grypotherium listai*; plaster cast of brain-cavity, right lateral, upper (1 *a*), and lower (1 *b*) aspects, one-half nat. size. *c.*, cerebrum; *cb.*, cerebellum; *f.*, infilling of foramen lacerum posterius; *ol.*, olfactory lobes; II., IV., V., VII., VIII., XII., exits of nerves as numbered.

PLATE VIII.

Fig. 1. *Grypotherium listai*; inner aspect of part of skin of flank, somewhat abraded, showing ossicles, one-half nat. size.
2. Ditto; group of dermal ossicles exposed from outer face, one-half nat. size.

PLATE IX.

Fig. 1. *Grypotherium listai*; epidermal sheath of claw of fourth digit of manus, inferior and lateral (1 *a*) aspects, two-thirds nat. size.
2. *Felis onça*, var.; portion of right humerus, anterior aspect and lower part of posterior aspect (1 *a*), two-thirds nat. size.
3. *Arctotherium* sp.; portion of distal end of right femur, anterior and outer (3 *a*) aspects, two-thirds nat. size.

3. On the Mammals obtained in Southern Abyssinia by Lord Lovat during an Expedition from Berbera to the Blue Nile. By W. E. DE WINTON, F.Z.S.

[Received December 13, 1899.]

(Plate X.)

Lord Lovat's party consisted of five Europeans, including Mr. H. Weld Blundell, and Mr. Harwood as Naturalist. Starting from Berbera about the middle of December 1898, and travelling *via* Machanis Hill and Fijambiro, they reached Harrar towards the end of the month, and continuing almost west *via* Shola, Laga Hardim, and Jiffa Densa, they arrived at Addis Abeba towards the end of January 1899.

During February an expedition was made to the northward *via* Wogodi and Koosa to Borameda, only some 20 miles south of Magdala; then turning a little to the eastward, they returned by way of the Djimma Valley *via* Kombolsha, Ticka Chika, and Angola.

Finally leaving Addis Abeba at the end of February, the expedition travelled due west *via* Managasha, Sellen, Goodur, Chellika, Bilo, and Lekemti to about 35° E.; then turning to the north *via* Mendi, they crossed the Dabus River at about 10° N., and so on through the Beni Schongul, crossing the Blue Nile at Famaka, and following the eastern or right bank of the river past Roseires, they reached Karkjof towards the end of May 1899, whence a passage was obtained in a boat to Khartoum.

The valuable collection of Birds brought home by the expedition will be found fully described by Mr. W. R. Ogilvie Grant in the 'Ibis' for January 1900, where a map of the route is also given. The collection of Birds has been presented to the British Museum,

together with all the small mammals and some of the most interesting of the Antelopes.

1. *MEGADERMA FRONS*.

♂, ♀. Roseires, Blue Nile, 1600 ft.

"Hanging on thick dead bushes ; readily fly in daylight."

2. *SCOTOPHILUS NIGRITA*.

♀. Bilo, 5500 ft., 10th March, 1899.

"Slightly wooded country."

3. *HELOGALE ATKINSONI*.

♀. Fijambiro, 5500 ft., 25th Dec., 1898.

"Shot on rocky hill among others."

4. *FUNISCIURUS MULTICOLOR*.

♂. Mendi, 1st April, 1899.

"Shot on tree in very marshy ground ; native name 'Shaila'."

The resemblance in colour of this Squirrel to the last species (*Helogale atkinsoni*) is very striking. In laying the two side by side, the only difference observable is the form of the tail ; for while that of the Squirrel is uniformly bushy throughout its length, that of the Mongoose is tapered towards the tip. The general colour of the body in both animals is very much the same, but the annulations on the fur of the Squirrel are slightly broader. Knowing so little of the habits of these two animals, it is impossible to draw any conclusions as to the object of the likeness in two species of such different families, but the striking resemblance at once calls to mind the parallel instance of the Tree-Shrew (*Tupaia*) and the Squirrel in the Oriental Region.

5. *GERBILLUS MURINUS*.

Roseires, Blue Nile, 1400 ft., 15th May, 1899.

6. *MUS ALBIPES*.

♂, ♂. Borumeda, 8000 ft., 13th February, 1899.

"Caught in camp on grassy plain ; native name 'Tet'."

♂. Lekemti, 6885 ft., 18th March, 1899.

♂. Mendi, 6th April, 1899.

♂. Beni Schongul, 2nd May, 1899.

7. *MUS MAHOMET*.

♂. Chellika, 8000 ft., 8th March, 1899.

"Caught on old corn-field ; native name 'Ait'."

Measurements taken in the flesh—head and body, 60 millim., tail 48, hind foot 14, ear 12.

This is the first example received in the British Museum of this species, which was described by Mr. S. N. Rhoads, of Philadelphia, from specimens obtained by Dr. Donaldson Smith at Sheikh Mahomet in Western Somaliland.

8. *ARVICANTHIS DEMBEENSIS*.

♀. Kombolsha, 16th February, 1899.

"Shot close to water-side among reeds. Small colony ; native name 'Ait'."

Measurements taken in the flesh—head and body 113 millim., tail 105, hind foot 26, ear 17.

This species, described by Rüppell in 1842, is represented in the British Museum by only a single specimen obtained by Dr. W. T. Blanford while accompanying Lord Napier's expedition to Magdala. The fur of this species is much softer and the annulations finer than in *A. abyssinicus*, and the belly is almost entirely white. The skull is rather less angular, and the palatal foramina are shorter, not reaching so far back as the first molar. The molars of the two species (see figs. A & B) are strikingly different ; the first upper molar of *A. dembeensis* is oval in shape, having only 7 cusps (the 8th being vestigial), three in the middle line with two inner and two outer of almost equal size placed in the intermediate spaces, so that the tooth is almost rose-shaped, six of the cusps surrounding the central one. It will be seen that the usual third outer cusp is almost entirely wanting.



A. Right upper molar series of *Arvicanthis abyssinicus*.

B. Right upper molar series of *A. dembeensis*.

The second upper molar is formed of six cusps, two larger in the middle line and four smaller—two outer and two inner—set in advance of the larger pair, so that the front of the tooth is concave, and the hind part convex, being formed of the middle cusp only. The pattern formed by the cusps of these two molars is very symmetrical, with the row of five large cusps of equal size in the middle line, and four smaller cusps on either side placed in the intermediate spaces.

The last molar is quite one-sided, being formed of one large cusp, in a straight line with the large middle line of cusps in the other teeth, and three smaller ones, all on the inner side, the hindermost forming the posterior border of the tooth.

The drawings (A & B) will more readily explain the formation of the teeth of these two species.

9. *ARVICANTHIS ABYSSINICUS*.

♀. Laga Hardim, 15th January, 1899.

♀. Jiffa Densa, 7800 ft., 23rd January, 1899.

♂. Addis Abeba, 7800 ft., 25th January, 1899.

♂, ♂. Koosa, 11,000 ft., 8th February, 1899.

♂. Ticka Chika, 4200 ft., 22nd February, 1899.

♂. Sellen, 6800 ft., 5th March, 1899.

♂. Goodur, 6th March, 1899.

"Large colony" is written on every label.

No doubt this is the common field-rat of the country, and is found on all soils and at any altitude.

Some specimens are labelled native name "Ait," some "Tet," so it is therefore probable that these names are simply the rendering of our "Rat" and "Mouse."

10. *DENDROMYS LOVATI*, sp. n. (Plate X.)

The fur in its general appearance and texture resembles that of *Malacothrix typicus*, but the ears are much shorter and the tail is longer; the whole upper surface longitudinally striped with black and fawn. The tail is not so long as in any known species of *Dendromys*, and is besides thickly covered with short adpressed hair; the fore and hind feet resemble those of *Dendromys* excepting that the long fifth toes in the hind feet have no nails.

The pattern of the markings are strikingly *Tamias*-like—a broad black dorsal stripe, having a grizzled central line in its middle portion, is flanked by two pale buff stripes, these again bordered with black stripes. A dark stripe runs up the centre of the face from the nose to the crown; darkish stripes also pass through the eyes to the ears, leaving the sides of the forehead and cheeks buff. The part of the ear which naturally folds over in front has a black spot as in *Malacothrix*; the edges of the ears are rusty, and the fur round them is also rusty buff.

The whole of the underparts are dirty white; the bases of the fur in all parts of the body are dark slate-grey.

The tail is two-coloured, rusty above and silvery whitish beneath; the fore and hind feet are thinly covered with very short pale buff hairs.

The fore feet have three long toes with claws, the first and fifth toes being quite vestigial. The hind feet have three long toes with claws; the outer or fifth toe is long, thumb-like, and partly opposable, but, so far as the single example shows, differs from that of the known forms of *Dendromys* in being quite destitute of a claw.

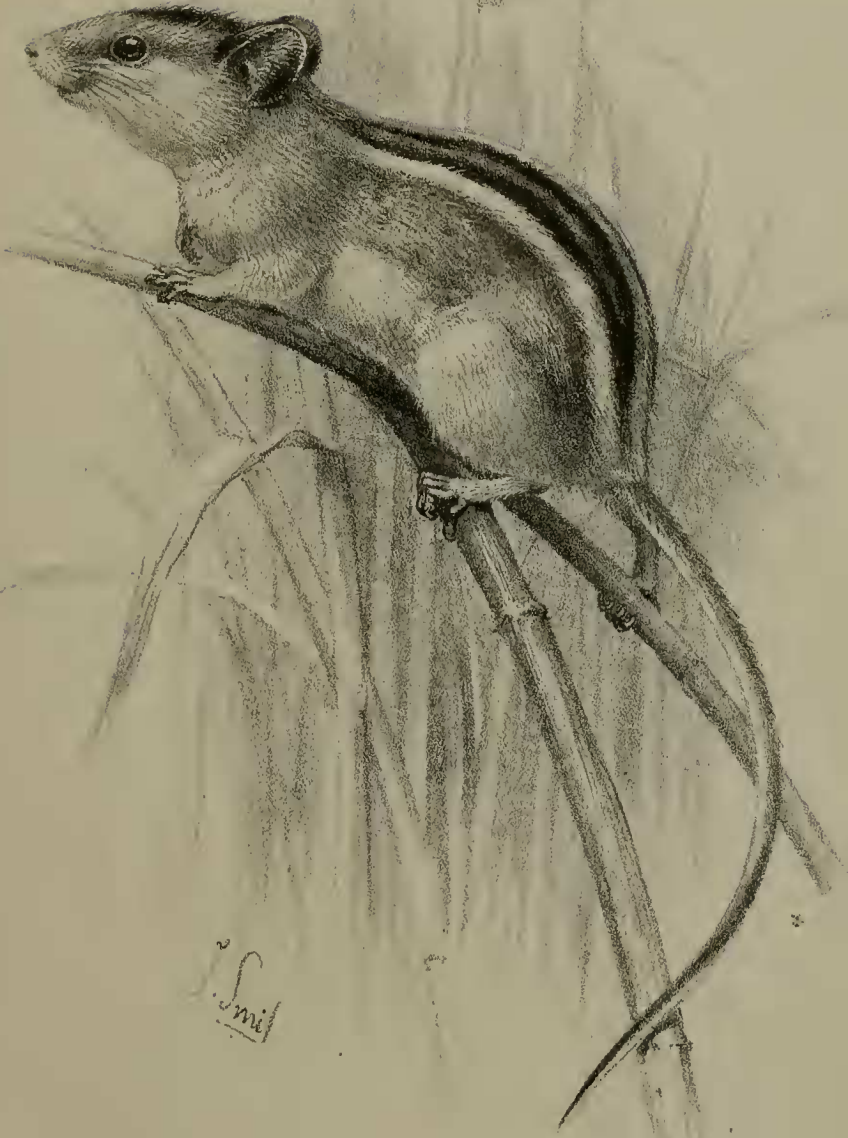
Type. ♂. Managasha, 7000 ft., 2nd March, 1899.

"Picked up on grass plateau."

Measurements taken in the flesh—head and body 73 millim., tail 69, hind foot 19, ear 14.

Of another specimen—head and body 76, tail 76, hind foot 17, ear 16.

Skull: greatest length 22.5, length of nasals 8.9, interorbital constriction of frontals 3.1, breadth of brain-case 9.5, length of upper molar series (c.) 3.9, length of first molar only 2. Mandible: greatest length, tip of incisors to condyle 14, bone only





12, tip of incisors to coronoid 11.1, tip of incisors to angle 13.5, height (angle to coronoid) 6.6, length of lower molar series 3.1.

The skull of the type is unfortunately crushed, so that full description or measurements are impossible; another skull is likewise much damaged, and being broken in two across the frontals dividing the molar series, the measurement of the tooth-row cannot be taken with absolute accuracy, and other measurements which it would be desirable to record are not possible. The skull resembles other species of *Dendromys* in general form.

The molars resemble those of *Dendromys typicus* in the strongly cuspidate form of the first tooth with numerous small supplementary cusps, while the second and third are flat on the surface and laminate, with one more fold than in the teeth of *Mus*.

11. TACHYORYCTES SPLENDENS.

♀. Shola, 7000 ft., 9th January, 1899.

"Caught on black soil, working near the surface; native name 'Farr'."

12. PROCAVIA SHOANA.

♂. Wogodi, 9000 ft., 6th February, 1899.

"Shot among rocks, out of a colony. Half size; observed one yellow. Burrs in fur of all. Native name 'Sessa'."

Examples of the following larger mammals were obtained during the trip. At Machanis Hill on the border of the Haud—*Bubalis swaynei*, *Gazella soemmerringi*, *Lithocranius walleri*, *Madoqua phillipsi*; in the Djimma valley—*Strepsiceros imberbis*; to the north of Addis Abeba—*Cervicapra bohor*, as well as Lions and Servals; in the Beni Schongul country, between the Dabus and Blue Nile—*Bubalis* sp. inc., *Tragelaphus decula*, *Cephalophus abyssinicus*, *Ourebia montana*, *Dorcotragus megalotis*, as well as numerous Elephants and Wart-Hogs; in the Blue Nile valley—*Cobus defassa*, *Hippotragus equinus*, *Oryx beisa*, and *Strepsiceros kudu*.

I leave the specific identification of the Hartebeeste from the Blue Nile undetermined for the present, for there appears to be much uncertainty as to the range of the different species. Herr Oscar Neumann has lately stated (SB. Gesellsch. naturf. Fr. Berlin, 1899, p. 76) that *Bubalis jacksoni* from near Lake Naivasha and Heuglin's species *B. lelwel* from the White Nile are identical. I consider this statement should be received with reserve, for, on comparing typical specimens of the two forms as represented in the British Museum, I find them very widely distinct. Again, on comparing a large number of skulls, from the White and Blue Niles, Lake Rudolf (*B. neumanni*, named after Mr. Arthur Neumann), and a fine series obtained by Mr. F. J. Jackson from between Lakes Baringo and Naivasha, there will be seen a complete bridging over of all the differences, and it may be found that *all* these forms are but local races of the same species.

By far the most important point with regard to the larger

mammals is the discovery of *Dorcotragus* in the Blue Nile Valley. Up to now, the only known habitat of this Antelope was a few flat-topped hills scattered about Somaliland, where it has been met with in very small numbers. Lord Lovat gives me the following note respecting it:—

“The Beira Antelope is common all down the Blue Nile to Roseires; it inhabits the slopes leading down to the river-bed, and is also seen on the barer hill-tops. Some specimens were seen with considerably better heads than the ones I shot. The natives call the animal ‘El Mor’.”

EXPLANATION OF PLATE X.

Dendromys lovati, p. 82.

February 6, 1900.

HOWARD SAUNDERS, Esq., F.L.S., V.P., in the Chair.

The Secretary read the following report on the additions to the Society's Menagerie during the month of January 1900.

The total number of registered additions to the Society's Menagerie during the month of January was 105, of which 29 were by presentation, 12 by purchase, 62 were received on deposit, and 2 were born in the Menagerie. The total number of departures during the same period, by death and removals, was 140.

The middle of winter seems to be an unusual time for a South European Passerine Bird to breed; yet a young Black-headed Bunting (*Emberiza melanocephala*) is entered in our register as having been hatched on Jan. 21st. The Head-keeper sends me the following report on this occurrence:—

About the middle of January last, a young Black-headed Bunting was observed in the Western Aviary by the keeper. A pair of this species of Bunting was purchased from a dealer in Dover in April 1899. No nest was built, and the egg or eggs were laid in an old thrush's nest in the ivy growing in the Aviary. The keeper had no idea that the birds were breeding, until he missed the female. On shaking the ivy the bird flew out, and a few days afterwards the young bird appeared. No traces of eggs were found in the nest.

Mr. Oldfield Thomas exhibited the heads of some rare Antelopes from Fashoda and the Sobat River which had been submitted to him by Messrs. Rowland Ward & Co. They had been obtained by the late Capt. H. G. Majendie, of the Rifle Brigade.

The most interesting was a fine head of Mrs. Gray's Waterbuck (*Cobus muriei* Gray), of which no perfect examples had come to

this country since the original heads were obtained by Consul Petherick in 1855. The specimen had been shot on the Upper Sobat River, 220 miles above its junction with the Nile, and just above the junction of the Adura and Peebon affluents. Capt. Majendie had never seen examples of it below the junction of these two affluents, but the natives told him there were lots of them up the Baro, as they called the Adura. The White-eared Kob (*Cobus leucotis* Licht. & Peters) was obtained on the Sobat River, and the Red-fronted Gazelle (*Gazella rufifrons* Gray) near Fashoda. The occurrence of the latter W. African species in the Soudan was a most noteworthy fact, and had been first brought to our knowledge last year by Mr. F. Burgess, who had been good enough to present to the British Museum a skin and two skulls of it obtained by him during the recent Soudan campaign at Faki-Kowi, on the White Nile, 200 miles south of Khartoum. Mr. Thomas had been quite unable to find any difference between these specimens and the types from West Africa, and it seemed probable that the species ranged all round the southern and western borders of the Great Saharan Desert, being represented on the north by the closely allied *G. rufina* Thos. The Tiang (*Damaliscus tiang* Heugl.) was obtained on the Sobat River.

Mr. G. E. H. Barrett-Hamilton, F.Z.S., exhibited some specimens of Dormice (*Muscardinus*), and made the following remarks:—

Recent accessions of Dormice to the British Museum Collection demonstrate the occurrence of at least two clearly marked local races or subspecies, in addition to that which I recently described under the name of *pulcher*¹. Thus the British Dormouse may be at once distinguished by the greater intensity of its coloration, and in other respects, from its representative in neighbouring Continental areas, such as Calais, Manonville, and Haute-Savoie (France), and Saxony.

There are also two specimens, Nos. 94.3.1.42 and 241, the latter from my own collection (without dimensions), from Zuberec, North Hungary, taken at an altitude of 2500 metres, which are slightly darker in colour than *M. avellanarius typicus*. Two others (Nos. 94.3.1.43 & 45), from Csaloköz Somorja, in the plains (1000 metres) of Western Hungary, are intermediate between the subspecies *typicus* and *speciosus*. Their relationship cannot well be made out until we receive further specimens, nor have we, in the absence of specimens from Scandinavia, an exact idea of the appearance of the form with which Linnæus was acquainted.

It is remarkable that in the British Dormouse we have what, at first sight, may seem to be an exception to the general rule that the representatives of a species inhabiting the British Isles² are duller than those of the neighbouring Continent. But if British

¹ Ann. & Mag. Nat. Hist. ser. 7, vol. ii. Nov. 1898, p. 423.

² British Harvest Mice are brighter than those of Western Hungary (see Ann. & Mag. Nat. Hist. ser. 7, vol. iii. April 1899, pp. 342 & 343).

animals are duller they are also usually more deeply coloured, and in this respect the Dormouse is melanochoic, and may, I think, be regarded as no exception to the general rule. I suspect that, when our knowledge of the distribution of colour amongst animals is greater, we shall find that this subspecies is only another instance of the influence of climate upon mammals, or, if it is preferred to regard the matter from a different standpoint, of the adaptation of animal coloration to suit prevailing climatic conditions.

The following forms are recognizable; they may, I think, be best regarded as subspecies:—

- (1) *MUSCARDINUS AVELLANARIUS TYPICUS* (Linnæus), Syst. Nat. ed. x. p. 62 (1758).

Myoxus muscardinus, Schreber, Säugthiere, iv. p. 835 (1792).

Typical locality. Upsala, Sweden.

Distinguishing characteristics. Upperside tawny yellow, not rufous or orange; the underside light buff, no distinct line of demarcation between colours of upper and under surface: a moderately distinct white breast. Tail long and slender.

Dimensions of specimens (in millim.).

	Head and body.	Tail.	Hind foot.	Ear.	Skull.	
					Greatest length.	Greatest breadth at base of zygoma.
94.6.6.12. ♂. Forest of Guines, Pas de Calais, alt. 80 met. (Oldfield Thomas), 26th May, 1894	72	71	16.2	...	22.5	13
94.6.6.13. ♀ (suckling). Do. do., 20th May, 1894; taken from nest with 5 blind and naked young ...	77	74	16.4	...	23.5	13
Three, Manonville, France (Mons. Lamont), taken from the nest, 18th Oct. 1895, of which the dimensions of one are	70	68	15	10	...	...
♂. Montauban, Haute-Savoie, 900 met. (A. Robert), 22nd Nov. 1899.	75	67	...	11	23.5	12.5
♂. Lucinges, Haute-Savoie, 1100 met. (A. Robert), 7th Dec., 1899.	78	61	15	11	24	12.5
99.1.9.16. ♂. "Oberwald bei Gros Hennersdorf," Stäts Oberlausitz, Saxony, 400 metres (W. Baer), 24th April, 1898.....	74	65	15	11.2	...	...

The dimensions of the Hungarian skulls range from 22.5 to 23 × 12.5 mm. The largest skull I have seen, next to that of the type of *M. a. anglicus*, is that of the type of *M. a. pulcher*, which reaches 24 × 12.5 mm.

- (2) *M. AVELLANARIUS ANGLICUS*, subsp. nov.

Type. No. 99.11.27.6 of Brit. Mus. Coll. (for particulars see below).

Distinguishing characteristics. Upper and under sides far more richly coloured with orange tints than in *M. avellanarius typicus*; line of demarcation indistinct, but white breast conspicuous; tail short and thick.

Dimensions of specimens (in millim.).

	Head and body.	Tail.	Hind foot.	Ear.	Skull.	
					Greatest length.	Greatest breadth at base of zygoma.
No. 242, coll. Barrett-Hamilton, ♀, } Wendon Lofts, Saffron Walden, Essex (A. Wright), May 31, 1894. }	85	61	15	...	23.5	13.5
99.11.27.6. Bedford Purlieus, Thorn- haugh, N.E. Northants (Rev. H. H. Slater), Jan. 5, 1895. (Dug up.) <i>Type of subspecies</i> }	86	57	16	...	24.5	14
♂, purchased in London, 15th Dec., 1898 (W. Dodson)	71	21 ¹	16	13	23	12.7
♀, do. (do.)	73	62	16	12	...	...
♀, do. (do.)	70	55	17	12	22.7	11.5

¹ Damaged.

(3) *M. AVELLANARIUS SPECIOSUS*, A. Dehne, Allgem. deut. Naturh. Zeitung, 1855, p. 180. Type locality: Tursi in Basilicata, South Italy.

? *M. pulcher*, Barrett-Hamilton, Ann. & Mag. Nat. Hist. ser. 7, vol. ii. Nov. 1898, p. 423. Type from Siena, Italy.

Distinguishing characteristics. Upperside brilliantly coloured; underside with the orange colour (except the breast) almost absent and reduced to rich cream-colour; breast white, but the combination of colours makes this inconspicuous, and the line of demarcation on the contrary sharp and well-defined; tail long and well-haired: the type has a cream-coloured spot just in front of each ear.

Further particulars and dimensions of this subspecies may be found under the original description. I fear that my name *pulcher* must, at least provisionally, stand as a synonym of *M. speciosus*.

Mr. Barrett-Hamilton also exhibited some skins of the Variable Hare (*Lepus timidus* Linn.) and made the following remarks:—

The receipt of two Scandinavian Variable Hares kindly sent over at my request by Professor Robert Collett, of Christiania, has caused me to look through the Variable Hares in the collection of the British Museum, with the result that I find that there are two very distinctly coloured groups in the Old World. One of these is reddish brown and includes the Irish Hares; the other dark brown, and includes the Scotch and such Scandinavian Hares as I have seen. The Scotch and Irish Hares are thus very clearly separated, at least in their extreme forms, and, in addition to the colour-differences, I find that the dimensions show a slight superiority of

size in favour of the latter, which is confirmed by observations on the weight of the animal. There is possibly a certain amount of intergradation between North Irish and South Scottish specimens, but I have as yet no evidence of it. I suspect that Scandinavian Hares are larger than those of Scotland, but the number of specimens at present at my disposal is too scanty to establish this fact with certainty.

The single specimen of the Altai Variable Hare which I have examined is very remarkable in that it belongs to the red-brown type, and closely resembles the Irish Hare: in fact, the only distinguishing characteristic which I can find in it is the fact that the back of each ear is black. It is a remarkable example of the manner in which a particular type of coloration may be independently assumed in quite separate localities.

There is a very peculiar local form of the Irish Hare, which is found in the County Dublin, Ireland, and in which the upperside is of a uniform buff or cinnamon colour. It seems to me to be of extreme interest to students of colour-variation, as tending to throw light on the possible evolution of species from "sports" or from discontinuous variations. That the Irish Hare may have a tendency to vary in that particular direction, even when transported to another country, is shown by the occurrence of a similar sport amongst the introduced Irish Hares of the Island of Mull, Scotland. These sports must, I suppose, be regarded in the light of partially albinistic or leucochroic variations; but, even if their origin be due in the first instance to disease, they seem to be highly hereditary, and even capable of holding their own against the ordinary form. In the particular district of the County Dublin to which I have referred they are said to occur to the total exclusion of the true *Lepus t. hibernicus*.

In addition to the above, I take the opportunity of describing from a skull in the British Museum a remarkable Variable Hare from the Island of Yezo, Japan.

The following are the various forms:—

(1) *LEPUS TIMIDUS TYPICUS*.

Lepus timidus, Linnæus, Syst. Nat. ed. x. p. 57 (1758).

Lepus variabilis, Pallas, Glires, i. p. 1 (1778).

Lepus albus, W. E. Leach, 'Syst. Cat. of the Specimens of the Indigenous Mammalia and Birds that are preserved in the British Museum,' p. 7 (1816).

"*Lepus borealis* Pall.," S. Nilsson, Skandinavisk Fauna, p. 211 (1820).

Lepus borealis sylvaticus, S. Nilsson, Illuminerade Figurer till Skandnaviens Fauna, letterpress to pl. 22 (1829-1832): nec Bachman (1837).

Lepus canescens, Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar, p. 133 (1844).

Synonymy. All the above names, except *L. albus* which has

reference to the Variable Hare of Scotland, seem to be synonyms of the Southern Scandinavian Variable Hare.

Type locality. Upsala, Sweden.

As regards colour and size, I cannot distinguish Professor Collett's specimens from those of Scotland: all have progressed a long way towards melanism. On the other hand, not one of my Scotch series reaches the size of two skulls, supposed to be from Scandinavia, in the British Museum. It is probable, therefore, that Nilsson was right in describing two forms of Variable Hare from Scandinavia.

Distribution (provisional). South Scandinavia, Scotland, and mountains of Europe.

(2) *LEPUS TIMIDUS COLLINUS*.

Lepus borealis collinus, S. Nilsson, *Illuminerade Figurer till Skandnaviens Fauna*, pl. 19 (1829-1832).

I have seen no specimens of the second Scandinavian form, which probably inhabits the mountains and the north of the country¹.

(3) *LEPUS TIMIDUS HIBERNICUS*.

Irish Hare, Yarrell, *Proc. Zool. Soc.* 1832, p. 88.

Lepus timidus var. β , Jenyns, *Mau. Brit. Vert. Animals*, 1835, p. 35.

Lepus hibernicus, Bell, *Hist. of British Quadrupeds*, 1837, p. 341.

Typical locality. Ireland.

Colour in summer reddish brown, often of conspicuous fox-like shade: in winter similar, but in severe weather or on exposed situations a white coat, more or less complete in proportion to the need, is assumed. Size larger than that of Scotch Hares. Weight up to about 10 lbs., whereas that of Scotch Hares, according to Mr. J. E. Harting, "averages probably between 5 lbs. and 6 lbs.; the heaviest I have noticed weighed $7\frac{1}{4}$ lbs."²

It is a pity that the original describer of this Hare should have compared it with the totally distinct Common Hare of England. Hence we have had, so far as I am aware, no careful comparison of it with the Scotch Hare, and its very conspicuous coloration has consequently been overlooked. The introduced Irish Hares of the Island of Mull retain their red coloration.

Distribution. Ireland.

(4) *LEPUS TIMIDUS LUTESCENS*, subsp. nov.

Type. No. 82.2.4.1 of British Museum Collection, from Donabate, Co. Dublin (Chas. Cobbe).

Distinguishing characteristics. General colour "rich buff-shading

¹ Since the above was written I have been able (through the kindness of Mr. W. E. de Winton) to examine three skulls from Russia, which probably belong to this form, and of which the basilar length is 80, 79, and 74.5 mm. (the latter immature).

² 'Field,' Sept. 5, 1891.

into pure white on the lower parts; the eyes are a pale straw-colour, with a greenish tint" (E. Williams, *Zoologist*, 1890, p. 71). The ears are without black tips.

This form is probably not sufficiently "fixed" to warrant its full admission to subspecific rank. It may perhaps be best regarded as a very conspicuous aberration on the verge of becoming subspecific, and it is certainly of such interest that I wish to draw attention to its existence in the most conspicuous manner available, *i. e.* by bestowing upon it a third name.

Distribution. Coast from Malahide to Balbriggan, Co. Dublin, Ireland.

(5) *LEPUS TIMIDUS ALTAICUS*.

"*Lepus altaicus. Lepus variabilis altaica* Everm." J. E. Gray, *List of Mammals*, 1843, p. 126.

Typical locality. Altai Mountains (?). I cannot find the original description of this form as alluded to by Gray.

A single skin in the British Museum (No. 96.10.14.3) can only be distinguished from Irish specimens by the black colour of the back of the ears, being apparently the downward extension of this colour from the tips. The dimensions of a skull (basilar length 66.5 mm.) show an animal of rather small size. The first specimen is labelled as having been procured by Major C. S. Cumberland in the Forest Region near Chiaja Steppe, Altai.

Distribution. Altai Mountains, Central Asia: exact limits unknown.

Should it be found that Eversmann's description was (as I suspect) never published, this subspecies will stand as *Lepus timidus altaicus* Barrett-Hamilton. Gray's name is a *nomen nudum*.

(6) *LEPUS TIMIDUS AINU*, subsp. nov.

Type. No. 84.4.15.2 of the British Museum Collection, a male from the Island of Yezo, purchased from Mr. A. Owston of Yokohama, Japan.

Description. The great size of this skull and the peculiar constricted brain-case mark it out as very distinct from any other known form. The basilar length of 80 mm. reminds one of the great Polar Hares of the North.

Distribution. The Island of Yezo, Japan.

(7) *LEPUS TIMIDUS TSCHUKTSCHORUM*.

Lepus tschuktschorum, Nordquist, Vega Exped. ii. pp. 84-90, figs. 8-10 (1883).

Type locality. Pitlekaj, lat. 67° N., long. 173° W., N.E. Siberia.

To complete the list of described Palearctic Variable Hares, I add this form, which belongs to the group of large polar forms. The skull of the single specimen in the collection has a basilar length of 87.5 mm., a size not attained by any other subspecies: it even exceeds that of *Lepus grœnlandicus* Rhoads, from Greenland. Although inhabiting the country just north of Kamchatka, the